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10/539,912

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Helmut Sieber

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07/03/2008

CLARIANT CORPORATION
INTELLECTUAL PROPERTY DEPARTMENT
4000 MONROE ROAD
CHARLOTTE, NC 28205

EXAMINER

CHUNG, RAYMOND

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

07/03/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|---------------------------------------|--|
| Office Action Summary | Application No. 10/539,912 | Applicant(s) SIEBER, HELMUT | |
| | Examiner RAYMOND CHUNG | Art Unit 1796 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 May 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

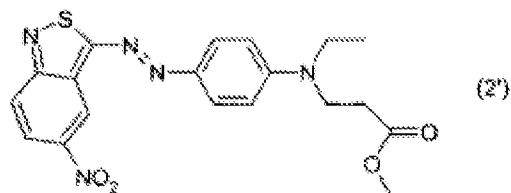
DETAILED ACTION

1. This action is responsive to amendments filed on May 21, 2008.
2. Claims 1-3 and 5-8 are pending. Claim 4 is cancelled.
3. Objection of claim 3 for minor informalities is withdrawn in light of amendments made by Applicant.
4. Rejection of claim 2 under 35 USC §112, second paragraph, is withdrawn in light of amendments made by Applicant.
5. Previous prior art rejections are withdrawn in light of amendments made by Applicant.

Claim Rejections - 35 USC § 103

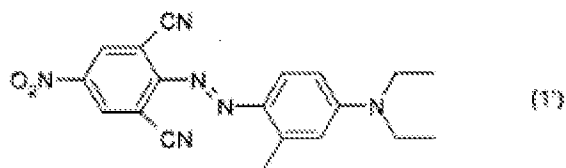
6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:
 1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
8. Claims 1-3 and 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Choi et al (Coloration Technology (2001), 117(3), pp. 127-133) in view of Hoppe et al (US Patent 5,160,348).

With regards to claim 1 and 3, Choi et al teaches a dye mixture wherein the at least one dye is a dye of formula (2') (P129, left column, table 1, "navy" or "black" formulation, dye 12)



in conjunction with a dye (P129, left column, table 1, "navy" or "black" formulation, dyes 4 and 7) similar in structure to that of formula (1').

However, Choi et al does not specifically teach comprising the at least one dye of formula (1')



Hoppe et al discloses a preferred dye mixture comprising the dye of formula (1') (C8, formula A) used in conjunction with a dye (C8, formula B) similar in structure to that of formula (2'). Furthermore, Hoppe teaches a dye mixture comprising the dye of formula (1') and a dye of formula (12) (C8, formula D, see also C7/L64-65)

Choi et al and Hoppe et al disclose analogous inventions related to mixtures of azo disperse dyes. It is known in the art that azo dyes of formulas (1') and (2') are useful in dyeing hydrophobic material and that mixtures of various azo dyes afford improved dye deposition and fastness on hydrophobic material as evidenced by Choi et

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al (P133, right column, first paragraph, L1-6) and Hoppe et al (C8/L61-65). Therefore, one of ordinary skill in the art would have been motivated to combine the dye of formula (2') disclosed by Choi et al with the dye of formula (1') and (12) disclosed by Hoppe et al in a dye mixture because the combination would afford a dye mixture free of charged dyes capable of dyeing hydrophobic material in a predictable manner. This would amount to nothing more than substituting dyes of similar structure to obtain the predictable result of improved dye deposition and fastness on hydrophobic material such as cellulose acetate and polyester. Furthermore, the combination of the dye of formula (2') disclosed by Choi et al with the dye of formula (1') and (12) disclosed by Hoppe et al in a dye mixture would amount to nothing more than combining two compositions each useful for the same purpose in order to form a third composition used for the same purpose since it has been held that "It is *prima facie* obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose.... [T]he idea of combining them flows logically from their having been individually taught in the prior art." *In re Kerkhoven*, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980). See MPEP 2144.06.

With regards to claim 2, modified Choi et al teaches all of the claim limitations set forth above.

While modified Choi et al does teach a composition comprising the dye of formula (1') (C8, formula A) and that said dye should be 25 to 80% when used in conjunction with another dye similar to the dye of formula (2') (Hoppe et al, C7/L60-61),

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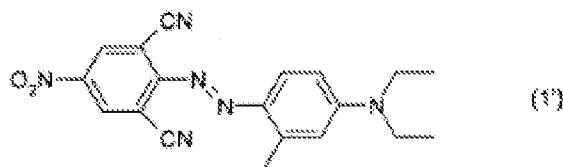
the references do not specifically teach a dye mixture wherein said dye mixture comprises up to 60% by weight of the dye of formula (1') based on the sum total weight of the dyes (1') and (2'). However, it is well known in the dye art that color depth imparted by a dye on a particular material is dependent on the concentration of said dye. Therefore, since the color depth is a variable that can be modified by adjusting the weight percentage of the dye of formula (1'), the weight percentage of the dye of formula (1') would have been considered a result effective variable by one having ordinary skill in the art at the time the invention was made. As such, without showing unexpected results, the claimed weight percentages cannot be considered critical. Accordingly, one of ordinary skill in the art at the time the invention was made would have optimized, by routine experimentation, the weight percentage of the dye of formula (1') to obtain the color depth desired (*In re Boesch*, 617 F.2d. 272, 205 USPQ 215 (CCPA 1980)), since it has been held that where the general conditions of the claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. (*In re Aller*, 105 USPQ 223).

With regards to claim 5, Choi et al teaches a method for dyeing or printing a semisynthetic or synthetic hydrophobic fiber comprising cellulose acetate, comprising the step of contacting a dye mixture comprising the dye of formula (2') (P129, left column, table 1, "navy" or "black" formulation, dye 12) in conjunction with a dye (P129, left column, table 1, "navy" or "black" formulation, dyes 4 and 7) similar in structure to that of formula (1') with the semisynthetic or synthetic hydrophobic fiber material

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comprising cellulose acetate (P128, right column, last paragraph to P129, left column, first paragraph).

However, Choi et al does not specifically teach the method wherein the mixture comprises the at least one dye of formula (1')



Hoppe et al discloses a preferred dye mixture comprising the dye of formula (1') (C8, formula A) used in conjunction with a dye (C8, formula B) similar in structure to that of formula (2'). Furthermore, Hoppe teaches a dye mixture comprising the dye of formula (1') and a dye of formula (12) (C8, formula D, see also C7/L64-65)

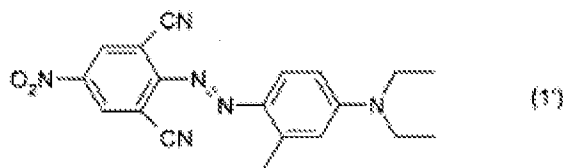
Choi et al and Hoppe et al disclose analogous inventions related to mixtures of azo disperse dyes. It is known in the art that azo dyes of formulas (1') and (2') are useful in dyeing hydrophobic material and that mixtures of various azo dyes afford improved dye deposition and fastness on hydrophobic material as evidenced by Choi et al (P133, right column, first paragraph, L1-6) and Hoppe et al (C8/L61-65). Therefore, one of ordinary skill in the art would have been motivated to combine the dye of formula (2') disclosed by Choi et al with the dye of formula (1') disclosed by Hoppe et al in a dye mixture because the combination would afford a dye mixture free of charged dyes capable of dyeing hydrophobic material in a predictable manner. This would amount to nothing more than substituting dyes of similar structure to obtain the predictable result of improved dye deposition and fastness on hydrophobic material such as cellulose

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acetate and polyester. Furthermore, the combination of the dye of formula (2') disclosed by Choi et al with the dye of formula (1') disclosed by Hoppe et al in a dye mixture would amount to nothing more than combining two compositions each useful for the same purpose in order to form a third composition used for the same purpose since it has been held that "It is *prima facie* obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose.... [T]he idea of combining them flows logically from their having been individually taught in the prior art." *In re Kerkhoven*, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980). See MPEP 2144.06.

With regards to claim 6, Choi et al teaches a method for dyeing or printing a structure comprising polyester and/or cellulose secondary acetate, comprising the step of contacting a dye mixture comprising the dye of formula (2') (P129, left column, table 1, "navy" or "black" formulation, dye 12) in conjunction with a dye (P129, left column, table 1, "navy" or "black" formulation, dyes 4 and 7) similar in structure to that of formula (1') with the fibrous structure comprising polyester and/or cellulose secondary acetate (P128, right column, last paragraph to P129, left column, first paragraph; "dye formulations and conventional dyes were applied to 100% diacetate or a blend made up of acetate and nylon" and "polyester-elastane").

However, Choi et al does not specifically teach the method wherein the mixture comprises at least one dye of formula (1')



Hoppe et al discloses a preferred dye mixture comprising the dye of formula (1') (C8, formula A) used in conjunction with a dye (C8, formula B) similar in structure to that of formula (2'). Furthermore, Hoppe teaches a dye mixture comprising the dye of formula (1') and a dye of formula (12) (C8, formula D, see also C7/L64-65).

Choi et al and Hoppe et al disclose analogous inventions related to mixtures of azo disperse dyes. It is known in the art that azo dyes of formulas (1') and (2') are useful in dyeing hydrophobic material and that mixtures of various azo dyes afford improved dye deposition and fastness on hydrophobic material as evidenced by Choi et al (P133, right column, first paragraph, L1-6) and Hoppe et al (C8/L61-65). Therefore, one of ordinary skill in the art would have been motivated to combine the dye of formula (2') disclosed by Choi et al with the dye of formula (1') disclosed by Hoppe et al in a dye mixture because the combination would afford a dye mixture free of charged dyes capable of dyeing hydrophobic material in a predictable manner. This would amount to nothing more than substituting dyes of similar structure to obtain the predictable result of improved dye deposition and fastness on hydrophobic material such as cellulose acetate and polyester. Furthermore, the combination of the dye of formula (2') disclosed by Choi et al with the dye of formula (1') disclosed by Hoppe et al in a dye mixture would amount to nothing more than combining two compositions each useful for the same purpose in order to form a third composition used for the same purpose since it

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has been held that “It is *prima facie* obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose.... [T]he idea of combining them flows logically from their having been individually taught in the prior art.” *In re Kerkhoven*, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980). See MPEP 2144.06.

With regards to claim 7, modified Choi et al teaches all of the claim limitations set forth above. Additionally, the references teach a fibrous structure dyed or printed with a dye as set forth above (Choi et al, P129, left column, first paragraph; “dyed samples” obtained by dyeing 100% diacetate or a blend made up of acetate and nylon).

With regards to claim 8, modified Choi et al teaches all of the claim limitations set forth above. Additionally, the references teach a semisynthetic or synthetic hydrophobic fiber material dyed or printed with a dye mixture set forth above (Choi et al, P129, left column, first paragraph; “dyed samples” obtained by dyeing 100% diacetate or a blend made up of acetate and nylon).

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RAYMOND CHUNG whose telephone number is (571)270-3881. The examiner can normally be reached on Monday-Thursday, 9am-6pm EST, Alt. Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

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USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Lorna M Douyon/
Primary Examiner, Art Unit 1796

/R.C./
July 1, 2008